

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

## PCT

see form PCT/ISA/220

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY  
(PCT Rule 43bis.1)

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/GB2005/000107

International filing date (day/month/year)  
13.01.2005

Priority date (day/month/year)  
13.01.2004

International Patent Classification (IPC) or both national classification and IPC  
B29D11/00, G02B1/04

Applicant  
POLYMER SCIENCES LIMITED

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

### 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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Box No. I Basis of the opinion

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application,
- ☒ claims Nos. 6-8, 17, 18, 27, 35, 36, 42, 43

because:

- ☐ the said international application, or the said claims Nos.      relate to the following subject matter which does not require an international preliminary examination (*specify*):
- ☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos.      are so unclear that no meaningful opinion could be formed (*specify*):
- ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
- ☒ no international search report has been established for the whole application or for said claims Nos. 6-8, 17, 18, 27, 35, 36, 42, 43
- ☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:
  - the written form      ☐ has not been furnished
  - ☐ does not comply with the standard
  - the computer readable form      ☐ has not been furnished
  - ☐ does not comply with the standard
- ☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.
- ☐ See separate sheet for further details

**WRITTEN OPINION OF THE  
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International application No.  
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**Box No. IV Lack of unity of invention**

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1. ☒ In response to the invitation (Form PCT/ISA/206) to pay additional fees, the applicant has:
- ☐ paid additional fees.
  - ☐ paid additional fees under protest.
  - ☒ not paid additional fees.
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is
- ☐ complied with
  - ☒ not complied with for the following reasons:  
**see separate sheet**
4. Consequently, this report has been established in respect of the following parts of the international application:
- ☐ all parts.
  - ☒ the parts relating to claims Nos. 12,40,41

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

|                               |             |                                     |
|-------------------------------|-------------|-------------------------------------|
| Novelty (N)                   | Yes: Claims | 12,40,41                            |
|                               | No: Claims  | 1-5,9-11,13-16,19-26,28-34,37-39,44 |
| Inventive step (IS)           | Yes: Claims | 12,40,41                            |
|                               | No: Claims  | 1-5,9-11,13-16,19-26,28-34,37-39,44 |
| Industrial applicability (IA) | Yes: Claims | 1-44                                |
|                               | No: Claims  |                                     |

2. Citations and explanations

**see separate sheet**

**WRITTEN OPINION OF THE  
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PCT/GB2005/000107

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**Box No. VII Certain defects in the international application**

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The following defects in the form or contents of the international application have been noted:

**see separate sheet**

**Re Item IV.**

The separate inventions/groups of inventions are:

1-5,9-16,19-26,28-34,37-39,40,41,44

Method of producing contact lenses using a laser cutting device

6-8,17,18,27,42,43

Method of producing contact lenses using high energy

35,36

Apparatus for producing contact lenses using male and female inserts

They are not so linked as to form a single general inventive concept (Rule 13.1 PCT) for the following reasons:

The application concerns methods and an apparatus for manufacturing contact lenses.

The reasons for which the present application has been deemed to contain 3 inventions which are not linked such that they form a single general inventive concept, as required by Rules 13.1, 13.2 and 13.3, PCT are as follows:

The prior art has been identified as: GB21 19957 , which concerns a manufacturing of contact lenses, which discloses:

providing a substantially dry material ( see page 4 line 63 "substantially non-cross linked"),  
forming a blanks ( page 4 line 65 to page 5 line 3)  
hydrating said blanks (see page 5 line 6 ""aqueous solution").

or alternatively see example 1.

D1 also discloses crosslinking as in step c of claim 27 and the features of claim 30 which are directly implied by example 1 and also inherent to the method of claim 1.

Also claims 28 and 44 are claim to contact lenses per se which are well known

Hence claims 1-5,9-16,19-26,28-34,37-39,40,41,44 are not novel or are directly obvious to a skilled man.

Invention I:

From which analysis follows that the following technical features can be seen to make a contribution over this prior art (Special Technical Features (STF), (Rule 13.2 PCT)):

claims 12,40,41: removing the lens blanks from the sheet using laser cutting

From these STF the objective problem to be solved by the 1st invention can be construed as:

to provide a method of removing lens blanks which is an alternative to that in the prior art

Invention II

From a comparison of the disclosure of this prior art and the technical features the following features can be seen to make a contribution over this prior art (Special Technical Features (STF), (Rule 13.2 PCT)):

claims 6-8,2742,43: applying high energy to the shaped blanks

From these, the objective problem to be solved can be construed as:

to provide a means of crosslinking which is an alternative to that in the prior art.

Invention III:

From a comparison of the disclosure of this prior art and the technical features the following features can be seen to make a contribution over this prior art (Special Technical Features (STF), (Rule 13.2 PCT)):

claims 35,36: platens are removably connectable with a plurality of inserts

From these, the objective problem to be solved can be construed as:

to provide an apparatus which is an alternative to that of the prior art.

The above analysis shows that the special technical features of invention I are neither the same as nor corresponding to those of invention II, nor the same as or corresponding to those of invention III

This appears to show lack of corresponding technical effect as well. Consequently, neither the objective problem underlying the subjects of the (three) claimed inventions, nor their solutions defined by the (special) technical features allow for a relationship to be established between the said inventions, which involves a single general inventive concept.

#### **Re Item V**

D1: GB-A-2 119 957 (AGRIPAT AG) 23 November 1983 (1983-11-23)

D2: EP-A-0 131 227 (BAYER AG) 16 January 1985 (1985-01-16)

D3: US-A-4 786 446 (HAMMAR ET AL) 22 November 1988 (1988-11-22)

#### **INDEPENDENT CLAIMS 1,28,29,44**

The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT. See Item IV above. Similar arguments apply to D2 and D3. Note hard contact material is dry and that cutting (machining) is also a means to apply a physical force. Also claims 28 and 44 are claims to



a contact lens per se.

DEPENDENT CLAIMS 2-5,9-11,13-16,19-26,30-34,37-39

Dependent claim 2-5,9-11,13-16,19-26,30-34,37-39 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT).

DEPENDENT CLAIMS 12,40,41

Document D1, which is considered to represent the most relevant state of the art is discussed above ( see Item IV).The subject-matter of claim 1 is therefore novel (Article 33(2) PCT).

The problem to be solved by the present invention and solution to this problem as are also discussed in Item IV. The proposed solution enables an alternative method of cutting the lens blanks fro e.g. a sheet: this was not hinted or suggested in the prior art. Hence, claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT).

#### **Re Item VII**

Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1,D2,D3 is not mentioned in the description, nor are these documents identified therein.